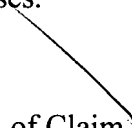CLAIMS

What is claimed is:

1   1.   A method for providing security, the method comprising the

2   steps of:

3   establishing one or more protection domains, wherein a

4   protection domain is associated with zero or more

5   permissions;

6   establishing an association between said one or more protection

7   domains and one or more classes of one or more objects;

8   and

9   determining whether an action requested by a particular object

10   is permitted based on said association between said one

11   or more protection domains and said one or more

12   classes.

1   2.   The method of Claim 1, wherein:

2   at least one protection domain of said one or more protection domains is

3   associated with a code identifier;

4   at least one class of said one or more classes is associated with said code

5   identifier; and

6   the step of establishing an association between said one or

7   more protection domains and said one or more classes of

8   one or more objects further includes the step of

9   associating said one or more protection domains and

10   said one or more classes based on said code identifier.

1   3.   The method of Claim 2, wherein said code identifier indicates a source of

2   code used to define each class of said one or more classes.

1   4.   The method of Claim 2, wherein said code identifier indicates a key

2   associated with each class of said one or more classes.

1   5.   The method of Claim 2, wherein said code identifier indicates a source of

2   code used to define each class of said one or more classes and indicates a key

3   associated with each class of said one or more classes.

1   6.   The method of Claim 2, wherein the step of associating said one

2   or more protection domains and said one or more classes based

3   on said code identifier further includes associating said one or

4   more protection domains and said one or more classes based on

5   data persistently stored, wherein said data associates code

6   identifiers with a set of one or more permissions.

1   7.   A method of providing security, the method comprising the steps of:

2   establishing one or more protection domains, wherein a protection domain is

3   associated with zero or more permissions;

4   establishing an association between said one or more protection domains and

5   one or more sources of code; and

6   in response to executing code making a request to perform an action,

7   determining whether said request is permitted based on a source of

8   said code making said request and said association between said one

9   or more protection domains and said one or more sources of code.

1   8.   The method of Claim 7, wherein the step of establishing an association

2   between said one or more protection domains and said one or more sources

3   of code further includes establishing an association between said one or more

4   protection domains and said one or more sources of code and one or more

5   keys associated with said one or more sources of code.

1   9.   The method of Claim 8, wherein the step of establishing an

2   association between said one or more protection domains and

3   said one or more sources of code and said one or more keys

4   associated with said one or more sources of code further

5   includes establishing said association between said one or more

6   protection domains and said one or more sources of code and

7   said one or more keys associated with said one or more sources

8   of code based on data persistently stored, wherein said data

9   associates particular sources of code and particular keys with a

10   set of one or more permissions.

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10. A computer-readable medium carrying one or more sequences of one or
more instructions, wherein the execution of the one or more sequences of the
one or more instructions causes the one or more processors to perform the
steps of:

establishing one or more protection domains, wherein a protection domain is
associated with zero or more permissions;

establishing an association between said one or more protection
domains and one or more classes of one or more objects;
and

determining whether an action requested by a particular object
is permitted based on said association between said one
or more protection domains and said one or more
—classes.

11. The computer readable medium of Claim 10, wherein:

at least one protection domain of said one or more protection domains is
associated with a code identifier;

at least one class of said one or more classes is associated with said code
identifier; and

the step of establishing an association between said one or
more protection domains and said one or more classes of
one or more objects further includes the step of

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9   associating said one or more protection domains and

10   said one or more classes based on said code identifier.

1   12.   The computer readable medium of Claim 11, wherein said code identifier

2   indicates a source of code used to define each class of said one or more

3   classes.

1   13.   The computer readable medium of Claim 11, wherein said code identifier

2   indicates a key associated with each class of said one or more classes.

1   14.   The computer readable medium of Claim 11, wherein said code identifier

2   indicates a source of code used to define each class of said one or more

3   classes and indicates a key associated with each class of said one or more

4   classes.

1   15.   The computer readable medium of Claim 14, wherein the step of associating

2   said one or more protection domains and said one or more classes based on

3   said code identifier further includes associating said one or more protection

4   domains and said one or more classes based on data persistently stored,

5   wherein said data associates code identifiers with a set of one or more

6   permissions.

1   16.   A computer-readable medium carrying one or more sequences of one or

2   more instructions, wherein the execution of the one or more sequences of the

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3   one or more instructions causes the one or more processors to perform the

4   steps of:

5   establishing one or more protection domains, wherein a protection domain is

6   associated with zero or more permissions;

7   establishing an association between said one or more protection domains and

8   one or more sources of code; and

9   in response to executing code making a request to perform an action,

10   determining whether said request is permitted based on a source of

11   said code making said request and said association between said one

12   or more protection domains and said one or more sources of code.

1   17.   The computer readable medium of Claim 16, wherein the step of establishing

2   an association between said one or more protection domains and said one or

3   more sources of code further includes establishing an association between

4   said one or more protection domains and said one or more sources of code

5   and one or more keys associated with said one or more sources of code.

1   18.   The computer readable medium of Claim 17, wherein the step of establishing

2   an association between said one or more protection domains and said one or

3   more sources of code and said one or more keys associated with said one or

4   more sources of code further includes establishing said association between

5   said one or more protection domains and said one or more sources of code

6   and said one or more keys associated with said one or more sources of code

7   based on data persistently stored, wherein said data associates particular

8   sources of code and particular keys with a set of one or more permissions.

1   19.   A computer system comprising:

2   a processor;

3   a memory coupled to said processor;

4   one or more protection domains stored as objects in said memory, wherein

5   each protection domain is associated with zero or more permissions;

6   a domain mapping object stored in said memory, said domain mapping

7   object establishing an association between said one or more

8   protection domains and one or more classes of one or more objects;

9   and

10 said processor being configured to determine whether an action

11   requested by a particular object is permitted based on

12   said association between said one or more protection

13   domains and said one or more classes.

1   20.   The computer system of Claim 19, wherein:

2   at least one protection domain of said one or more protection domains is

3   associated with a code identifier;

4   at least one class of said one or more classes is associated with said code

5   identifier; and

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6   said computer system further comprises said processor

7   configured to establish an association between said one

8   or more protection domains and said one or more classes

9   of one or more objects by associating said one or more

10   protection domains and said one or more classes based

11   on said code identifier.

1   21.   The computer system of Claim 20, wherein said code identifier indicates a

2   source of code used to define each class of said one or more classes.

1   22.   The computer system of Claim 20, wherein said code identifier indicates a

2   key associated with each class of said one or more classes.

1   23.   The computer system of Claim 20, wherein said code identifier indicates a

2   source of code used to define each class of said one or more classes and

3   indicates a key associated with each class of said one or more classes.

1   24.   The computer system of claim 20, further comprising said

2   processor configured to associate said one or more protection

3   domains and said one or more classes based on said code

4   identifier by associating said one or more protection domains

5   and said one or more classes based on data persistently stored in

6   said computer system, wherein said data associates code

7   identifiers with a set of one or more permissions.